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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,419	08/27/1999	GRAHAM BANK	85874/136	7815

7590 05/19/2004

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EXAMINER

NI, SUHAN

ART UNIT	PAPER NUMBER
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2643

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DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/384,419

Applicant(s)

BANK ET AL.

Examiner

Suhan Ni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-27 and 33-39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 3,7-21 and 34-39 is/are allowed.
6) ☒ Claim(s) 1,5,6,22-27 and 33 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to the response filed 02/23/2004.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Mochida et al. (U. S. Pat. - 3,509,290).

Regarding claim 1, Mochida et al. disclose a panel-form loudspeaker (Figs. 1A-C) comprising: a resonant panel-form member (1) and a vibration exciting system (2-3) on the panel-form member and adapted to apply bending wave energy thereto to cause the panel-form member to produce an acoustic output, wherein the vibration exciting system is adapted to apply torsion to the panel-form member as claimed.

Regarding claim 33, Mochida et al. further disclose the panel-form loudspeaker, wherein the vibration exciter/exciting system is adapted to the resonant panel for applying torsion and shear thereto, and said vibration exciting system is coupled to the panel to span a plurality of nodal lines in the panel (Figs. 2-3 and 5-6) as claimed.

3. Claims 1 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsda et al. (U. S. Pat. - 4,191,863).

Regarding claim 1, Matsda et al. disclose a panel-form loudspeaker (Fig. 4) comprising: a resonant panel-form member (12) and a vibration exciting system (30) on the panel-form member and adapted to apply bending wave energy thereto to cause the panel-form member to produce an acoustic output, wherein the vibration exciting system is adapted to apply torsion to the panel-form member as claimed.

Regarding claims 5-6, Matsda et al. further disclose the panel-form loudspeaker comprising a suspension means (16) on which the panel is mounted as claimed.

4. Claims 1 and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Azima et al. (U. S. Pat. - 6,144,746).

Regarding claim 1, Azima et al. disclose a panel-form loudspeaker comprising: a resonant panel-form member (2) and a vibration exciting system (9) on the panel-form member and adapted to apply bending wave energy thereto to cause the panel-form member to produce an acoustic output, wherein the vibration exciting system is adapted to apply torsion to the panel-form member as claimed.

Regarding claims 23-27, Azima et al. further disclose the panel-form loudspeaker, that the vibration exciter/exciting system (9) comprises a piezoelectric device attached to a face of the panel (Fig. 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochida et al. (U. S. Pat. - 3,509,290) or Matsda et al. (U. S. Pat. - 4,191,863).

Regarding claim 22, Mochida or Matsda et al. do not clearly teach all the details of the vibration exciting system as claimed. Since providing a suitable vibration exciting system for a desirable vibrating panel of a loudspeaker is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to provide suitable vibration exciting system, such as a rotor with conductive input elements for the panel speaker, for providing a loudspeaker with a desirable output power for satisfying certain applications.

Allowable Subject Matter

6. Claims 3, 7-21, and 34-39 are allowed.

Response to Amendment

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is (703)-308-9322, and the number for fax machine is (703)-305-9508. The examiner can normally be reached on Monday through Thursday from 9:00 am to 7:30 pm. If it is necessary, the examiner's supervisor, **Curtis Kuntz**, can be reached at (703) 305-4708.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-3900.

Suhan Ni
Primary Examiner
Art Unit 2643
USPTO



SUHAN NI
PRIMARY EXAMINER

May 12, 2004